

<p>U.S. DEPARTMENT OF COMMERCE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION NATIONAL OCEAN SERVICE</p> <p>HORIZONTAL AND VERTICAL CONTROL REPORT</p>
<p><i>Type of Survey</i> Navigable Area</p> <p><i>Field No.</i></p> <p><i>Registry No.</i> H11353</p>
<p>LOCALITY</p> <p><i>State</i> New York</p> <p><i>General Locality</i> East River</p>
<p><u>2004</u></p> <p>CHIEF OF PARTY</p> <p>CDR Emily B. Christman</p> <p>NOAA Ship THOMAS JEFFERSON</p>
<p>LIBRARY & ARCHIVES</p> <p>DATE</p>

I. Projects Surveyed**OPR-B410-TJ-04****Registry #: H11353**

- General Locality: East River, NY
- Sub-locality: Triborough Bridge to The Battery
- Chief of party: CDR Emily B. Christman
- Project Instructions Dated: July 7, 2004

II. Vertical Control**A. OPR-B410-TJ-04**

All Tide Stations used for this project were Acoustic VX1100. Tide station 851-8750 located at The Battery and tide station 851-6945 located at Kings Point, NY were installed by CO-OPS and are GOES enabled. Preliminary tide zoning was provided with the Project Instructions. Observed water level data were sent via mail using in-house software Tidebot. These water level data and preliminary zoning were applied to bathymetry data in Caris Hips.

The Battery, NY

- Station ID: 851-8750
- Latitude: 40° 42' 03" N
- Longitude: 074° 00' 51" W
- No unusual tidal, water level or current conditions were reported.
- No setup or leveling was conducted by THOMAS JEFFERSON Personnel.

Kings Point, NY

- Station ID: 851-6945
- Latitude: 40° 48' 39" N
- Longitude: 073° 45' 52" W
- No unusual tidal, water level or current conditions were reported.
- No setup or leveling was conducted by THOMAS JEFFERSON Personnel.

Horns Hook, NY

- Station ID: 851-8668
- Latitude: 40° 46' 36" N
- Longitude: 073° 56' 30" W
- No unusual tidal, water level or current conditions were reported.
- No setup or leveling was conducted by THOMAS JEFFERSON Personnel.

Times of Hydrography:

Year DOY	Min Time	Max Time
2004 211	15:17:24	19:54:32
2004 212	12:00:45	23:17:30
2004 213	13:05:41	20:08:18
2004 214	13:23:09	22:18:16
2004 215	12:40:08	20:28:57
2004 216	12:44:12	22:57:20
2004 217	13:08:15	17:09:39

III. Horizontal Control

All parameters were provided in the letter instructions and no additional fieldwork was completed that would change any parameters.

IV. Approval

As Chief of Party, I have ensured that all information contained in the Vertical and Horizontal Control Report is complete and accurate to the best of my knowledge.

Submitted:

ENS Andrew P. Seaman, NOAA
Junior Officer

Approved and Forwarded:

LT Marc S. Moser, NOAA
Field Operations Officer

CDR Emily B. Christman, NOAA
Commanding Officer